Type III Categorical Exclusion Action Classification Form

STIP Project No.	U-5710
WBS Element	50116.1
Federal Project No.	NHPP-0074 (159)

A. Project Description

The North Carolina Department of Transportation (NCDOT) propose to upgrade the at-grade intersection of Eastwood Road (US 74) and Military Cutoff Road (SR 1409; US 17/ US 76) in Wilmington, New Hanover County to an interchange (see **Figure 1**). The project is included in the NCDOT 2018-2027 State Transportation Improvement Program (STIP) as Project No. U-5710. This project is anticipated to begin right of way (ROW) acquisition in Fiscal Year (FY) 2019 and construction in FY 2020. The approximate two-mile improvements and surrounding area that is evaluated in this Categorical Exclusion (CE) is referred to as the study corridor or project study area. The proposed project is included in the Wilmington Metropolitan Planning Organization (WMPO) Cape Fear Transportation 2040 Metropolitan Transportation Plan (November 2015).

B. <u>Description of Purpose and Need</u>

Purpose of Project

The purpose of this project is to improve the traffic carrying capacity and operation of the intersection of Eastwood Road with Military Cutoff Road. The proposed improvements will accommodate a higher traffic capacity at the intersection while maintaining an acceptable speed of travel through the corridor. Improving the intersection, by improving carrying capacity and traffic operations will help achieve long-term mobility goals.

Need for Project

Eastwood Road, a principal arterial, serves as the primary east-west connector between the City of Wilmington and the Town of Wrightsville Beach. The route is heavily utilized by visitors and tourists destined for the Atlantic coast, particularly during off-peak hours and weekends. Military Cutoff Road, also a principal arterial, serves as part of the outer loop encompassing Wilmington's urban area. This route, aligned as north-south within this study area, serves primarily local commuters and, thus, carries the higher peak-hour demands of the two major routes being studied. The intersection currently operates at near-failing operations and is expected to worsen as peak-hour traffic demands in the area increase in the coming years. Long delays in both peak hours are expected with future traffic volumes at the intersection. Residential communities, office parks, and shopping plazas occupy the four quadrants adjacent to the intersection, putting significant restrictions on potential right of way expansion or realignment of the roadways as part of the proposed improvements.

In the year 2015, at the intersection, approximately 22,000 vehicles per day (vpd) traveled on Eastwood Road and 41,000 vpd on Military Cutoff Road. The intersection currently experiences congestion and delays on a daily basis. By the year 2035, Eastwood Road is projected to have 39,300 vpd and Military Cutoff Road 64,400 vpd.

C. Categorical Exclusion Action Classification

The proposed project is classified as Type III for purposes of preparing the CE.

D. Proposed Improvements

NCDOT evaluated the No Build Alternative and Build Alternative for the proposed project. Each alternative was assessed with respect to its ability to meet the project's purpose and need. The Build Alternative is a grade-separated quadrant intersection design (see **Figure 2**). The following paragraphs describe the No Build and Build Alternatives considered for the proposed action, and the identification of the Proposed Alternative. Additionally, this section describes other alternatives that were considered, but screened out for various reasons.

No Build Alternative

The No Build Alternative is an alternative for which no physical improvements to the existing roadway or construction of a new facility is proposed. The No Build Alternative for this project does not meet the transportation goals of the NCDOT and WMPO, fails to provide solutions to anticipated high traffic volumes in the area, and does not satisfy the purpose and need for action. For these reasons, NCDOT does not consider the No Build Alternative as the preferred alternative for this proposed project. The No Build Alternative does, however, provide a basis for comparing the benefits and adverse impacts of the Build Alternative. Thus, the No Build Alternative is included in this CE.

Proposed Alternative (Figure 2)

The Proposed Alternative is a grade-separated quadrant intersection with Eastwood Road bridging Military Cutoff Road. Commonwealth Drive in the southwest quadrant is proposed to be widened to become an access ramp to eastbound Eastwood Road and southbound Military Cutoff Road. Commonwealth Drive is also proposed to have a median with breaks for access to businesses along the roadway. Curb and gutter are proposed on both sides of Commonwealth Drive.

The bypass movements at the east and north legs of the main intersection are diverted to a proposed extension route in the northwest quadrant of the intersection. The south end of this proposed connection will create a new signalized intersection along Eastwood Road located approximately 800 feet west of Military Cutoff Road, whereas the north end ties into the existing intersection of Military Cutoff Road at Drysdale Drive (and is thus tentatively named Drysdale Drive Extension).

Removing left turns from the main intersection improves the efficiency of the intersection. The grade separation and improved access to Eastwood Road from Commonwealth Drive by an access ramp allows traffic to remain free-flowing through the intersection. This alternative also improves traffic operations and improve long-term travel conditions throughout the entire length of the study area.

In addition to the proposed re-routed travel as part of the quadrant design, medians are proposed to be built along the two main intersection approaches, which result in left-turn restrictions at the following locations:

- Office Park South Driveway current plans show access restricted to right-in / right-out with vehicles having to utilize U-turn locations to make left turns.
- Office Park North Driveway current plans show access restricted to right-in / right-out with vehicles having to utilize U-turn locations to make left turns.
- Landfall Center South Driveway current plans show access restricted to right-in / right-out. Eastbound left-turning drivers must instead enter the Landfall Center at either of the two driveways along Military Cutoff Road.
- Galleon Lane current plans show this access being closed completely. All vehicles will be able to access the Drysdale Drive Extension to enter/exit the Eastport neighborhood.

Alternatives Eliminated from Further Consideration

Eight alternatives were screened and evaluated after considering overall traffic operations, right of way impacts, structural impacts, constructability, and access management in terms of benefits and drawbacks. The alternatives included: at-grade quadrant, single-point urban interchange

(SPUI) Military Cutoff Road overpass, SPUI Eastwood Road overpass, Echelon¹ interchange, 4-leg continuous flow intersection (CFI), 2-leg CFI, grade-separated quadrant at Commonwealth Drive, and quadrant on new location (northwest quadrant behind Eastport neighborhood).

After consultation and further analysis of the functionality, constructability, and impacts of the alternatives, NCDOT and local officials eliminated all but one concept from further consideration. The grade-separated northwest quadrant intersection was carried forward as the Proposed Alternative. See the NCDOT project files for additional information on the alternatives eliminated.

E. Special Project Information for the Build Alternative (Proposed Alternative)

This section summarizes the proposed improvement associated with the Proposed Alternative (see **Figure 2**).

Roadway Cross Section and Alignment

Eastwood Road is proposed to bridge at-grade Military Cutoff Road with two 12-foot inside travel lanes and two 14-foot outside travel lanes, a raised median varying between 12 and 36 feet, curb and gutter, and 10-foot shoulders on both sides of the roadway. The proposed right of way is 108 feet.

Military Cutoff Road remains at-grade with six 12-foot travel lanes divided by a 30-foot raised median with left-over crossings to allow access. Curb and gutter are proposed on both sides of the roadway. The proposed right of way is 131 feet.

Drysdale Drive Extension is proposed to include four 12-foot travel lanes divided by a 33-foot median. Curb and gutter and 15-foot berms are proposed on both sides of the roadway. The proposed right of way is 115 feet.

The Gary Shell Cross City Trail within NCDOT right of way in the southwest quadrant of the intersection will be removed and replaced with a trail within NCDOT right of way in the northwest quadrant. A 10-foot berm is proposed on the southbound side of Military Cutoff Road for pedestrians. Northbound Military Cutoff Road is proposed to include a 15-foot berm to accommodate a 10-foot multi-use path connection for a new section of the Military Cutoff Trail between Eastwood Road and Drysdale Drive. A 10-foot multi-use path segment of the Cross City Trail is proposed on the east and west sides of Drysdale Drive Extension. **Table 1** summarizes the existing and proposed through lane configurations within the study corridor.

Right of Way Acquisition

Right of way acquisition along Eastwood Road and Military Cutoff Road is anticipated to result in minimal adverse effects on adjacent properties, as widening will occur primarily within the existing right of way. The Drysdale Road extension on new location is primarily on vacant land behind Eastport subdivision.

Changes in Access Control

The Eastwood Road overpass is designed to have full control of access. Military Cutoff Road, Commonwealth Drive, and Drysdale Drive extension are designed to have partial control of access. Commonwealth Drive currently has partial control of access. Military Cutoff Road currently has no control of access.

Speed Limit

Existing: The posted speed for Eastwood Road is 45 miles per hour (mph) within the project study area. Military Cutoff Road posted speed is 45 mph within the project study area. The statutory speed limit for unposted Commonwealth Drive is 35 mph.

Proposed: Eastwood Drive and Military Cutoff Drive posted speed limits through the intersection would be 45 mph.

¹ Symmetrical but offset pair of grade-separated, signalized intersections. U-5710

Design Speed

The design speed is 50 mph along Eastwood Road and Military Cutoff Road in the study area.

Table 1: Existing and Proposed Lane Configurations

Roadway			Total	Number of Lanes
Eastwood Road				
From	То		Existing (EB/WB)	Proposed (EB/WB)
Cavalier Drive	Military Cutoff Road		2/2	2/2
Military Cutoff Road	Lions Gate Drive		2/2	2/2
Military Cutoff Road				
From	То		Existing (SB/NB)	Proposed (SB/NB)
Parker Farm Road	Drysdale Drive		2/3	3/3
Drysdale Drive	Eastwood Road		2/3	3/3
Eastwood Road	Allens Lane N of Wrightsville Avenue		2/2	3/3
Allens Lane			2/2	2/2
Drysdale Drive				
From	То		Existing (EB/WB)	Proposed (EB/WB)
Landfall Shopping Center	Military Cutoff Road		1 entrance lane 2 exit lanes	2 entrance lanes 1 exit through lane, 3 exit turn lanes
Military Cutoff Road*	Eastwood Road*		N/A	3 through lanes transitioning to 2 turn lanes 2 through lanes transitioning to 1 through lane and 4 turn lanes
Commonwealth Drive				
From	From To		Existing (EB/WB)	Proposed (EB/WB)
Eastwood Road	Military Cutoff Road		1/1	1/1

EB= Eastbound, WB= Westbound, NB= Northbound, SB= Southbound

Bicycle and Pedestrian Facilities/ Greenways

Two WMPO routes exist within the study area and within NCDOT right of way. Bike Route 11 follows Military Cutoff Road from the intersection north to beyond the study area. Bike Route 12A follows Eastwood Road beyond the entire length of the study area.

The Military Cutoff Trail is a 2-mile asphalt multi-use path (MUP) within NCDOT right of way on northbound Military Cutoff Road between Drysdale Drive and Market Street. Under U-5710, a new segment of the trail is proposed along the Drysdale Road extension to complete the link between Drysdale Drive and Eastwood Road. The new segment intersects the Gary Shell Cross City Trail on Eastwood Road. The City of Wilmington already had plans to extend the Military Cutoff Trail to Eastwood Road.

The existing Gary Shell Cross City Trail within NCDOT right of way on Eastwood Road from Lions Gate Drive/ Pembroke Jones Drive to Military Cutoff Road is proposed for extension westward to connect with the new Military Cutoff Trail segment at the intersection. A new segment of the Cross City Trail is proposed along the east side of the Drysdale Drive extension from Military Cutoff Road to approximately 350 feet north of Eastwood Road. A new segment of the Cross City Trail on the west side of Drysdale Drive extension is proposed within NCDOT right of way from the terminus at the east side path south to Eastwood Road then west to the project terminus at Cavalier Drive. See **Figure 2** for the new trail segment locations.

^{*}This section is the proposed Drysdale Drive Extension

Bicycle/ pedestrian travel on Eastwood Road from Cavalier Drive eastward to Lions Gate Drive is accomplished by making a left turn onto the Drysdale Drive extension, crossing onto the east side of Military Cutoff Road and turning left (eastbound) at Eastwood Road. Coordination with local agencies on bicycle/ pedestrian facilities and area greenway connections has occurred previously, and will continue to occur as the project moves into final design.

Pedestrian and bicycle accommodations will be coordinated with the City of Wilmington during final design. In accordance with NCDOT will bear the full cost to replace existing sidewalks to be relocated by the project along existing streets. The City of Wilmington will participate in the cost of new sidewalks and a multi-use path where they do not currently exist. A municipal agreement will be prepared prior to project construction. The type and location of pedestrian crossings will be coordinated and determined with the City of Wilmington during final design.

Noise Barriers

See Section G, Item 28 below.

Water Resources and Estimated Impacts

Water resources in the study area are part of the Onslow Bay Basin [United States Geological Survey (USGS) Hydrologic Unit 03020302]. Stream SA is an unnamed tributary to Bradley Creek, which is a Primary Nursery Area. Stream SB is a jurisdictional, non-mitigable tributary is located on the south side of Eastwood Road across from the Cambridge Village Senior Living facility. **Table 2** provides the estimated impacts to the two jurisdictional streams identified in the study area as shown on **Figure 3**.

Table 2: Estimated Impacts to Jurisdictional Streams in the Study Area

Stream Name	Map ID	DWQ Index Number	Length (ft.)	Temporary Impacts (If)	Permanent Impacts (If)	Compensatory Mitigation Required
UT to Bradley Creek	SA	18-87-24-4(2)	314	45	450	Yes
UT to Motts Channel/ Intercoastal Waterway	SB	18-87-24	84	15	35	No
Total			398	60	485	

Note: Estimates calculated using 25-foot buffer for slope stakes.

Two jurisdictional wetlands were identified within the project study area. The wetlands are shown on **Figure 3**. Impacts to wetlands are provided in **Table 3**.

Table 3: Estimated Impacts to Jurisdictional Wetlands in the Study Area

Map ID	NCWAM Classification	Hydrologic Classification	Area (ac.)	Temporary Impacts (ac.)	Permanent Impacts (ac.)
WA	Pocosin Wetland	Non-riparian	0.35	0	0
WB	Basin Wetland	Non-riparian	0.07	0.07	0.07
TOTAL			0.35	0.07	0.07

Stream Crossings

The proposed design includes an Eastwood Road stream crossing of SA. Final pipe size will be dependent on hydraulic capacity, which is currently under review.

Jurisdictional Issues

A General Permit (GP) 31 will likely be applicable. The US Army Corps of Engineers holds the final discretion as to what permit will be required to authorize project construction.

Federally Protected Species

As of April 2, 2015, the US Fish and Wildlife Service (USFWS) lists 17 federally protected species for New Hanover County. **Table 4** provides the list of federally protected species in New Hanover County, all of which are under the jurisdiction of USFWS. Brief descriptions of the listed species and the Biological Conclusion describing whether the proposed project would affect the species are shown in **Table 4**. The Biological Conclusion is based on field observation and survey results in the study area.

Table 4: Federally Protected Species for New Hanover County

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
Alligator mississippiensis	American alligator	T(S/A)	No	No Effect
Picoides borealis	Red-cockaded woodpecker	E	Yes	No Effect
Chelonia mydas	Green sea turtle	Т	No	No Effect
Eretmochelys imbricata	Hawksbill sea turtle	E	No	No Effect
Lepidochelys kempii	Kemp's ridley sea turtle	E	No	No Effect
Dermochelys coriacea	Leatherback sea turtle	E	No	No Effect
Caretta caretta	Loggerhead sea turtle	T	No	No Effect
Acipenser oxyrhynchus oxyrhynchus	Atlantic sturgeon	Е	No	No Effect
Acipenser brevirostrum	Shortnose sturgeon	E	No	No Effect
Myotis septentrionalis	Northern long-eared bat	Т	Yes	MALAA
Charadrius melodus	Piping plover	T	No	No Effect
Calidris canutus rufa	Red knot	T	No	No Effect
Trichechus manatus	West Indian manatee	E	No	No Effect
Thalictrum cooleyi	Cooley's meadowrue	E	Yes	No Effect
Carex lutea	Golden sedge	E	No	No Effect
Lysimachia asperulaefolia	Rough-leaved loosestrife	E	Yes	No Effect
Amaranthus pumilus	Seabeach amaranth	Т	No	No Effect

T(S/A) – Threatened due to similarity of appearance

MALAA - May Affect, Likely to Adversely Affect

Displacements/ Right of Way Acquisition

Based on the functional design, the project is estimated to relocate 4 residences and no businesses. A relocation report is under development and will be completed prior to right of way authorization. This is a not a significant number of residential relocations when compared to the overall number of residences in the area.

Preliminary Impacts

Preliminary impacts for the Proposed Alternative are shown in **Table 5**.

E – Endangered T -

T – Threatened

Table 5: Impact Matrix for the Proposed Alternative (Build Alternative)

Resources		Impacts	
Length (miles)		2.0	
	Residential	4	
Relocations	Business	0	
	Non-profit	0	
	Total Relocations	4	
Minority/ Low Income		0	
(Disproportionate Imp	,	U	
Limited English Profice		0	
Historic Properties (A	dverse Effects)	0	
Community Facilities	Impacted	0	
Section 4(f) Resource	es	0	
Noise Receptor Impa	cts	60 residential/ 1 commercial	
Right of Way (acres)		8.4	
Easements (acres)		6.1	
Streams (Linear feet)		60 temporary/ 485 permanent	
Wetlands (acres)		0.07 temporary/ 0.07 permanent	
Hazardous Material S	Sites (including USTs)	3- low risk	
Federally Protected Species Red-cockaded woodpecker Northern long-eared bat			
		Unresolved	
		May Affect, Likely to Adversely Affect	
	Cooley's meadowrue	Unresolved	
	Rough-leaved loosestrife	Unresolved	

Cost Estimate

The cost estimates for the Proposed Alternative, as shown in **Table 6** are from the 2018-2027 STIP.

Table 6: Cost Estimate (2018-2017 STIP)

Right of Way Cost	\$ 6,830,000
Utility Cost	\$ 75,000
Construction Cost	\$23,150,000
Total Cost	\$30,055,000

Public Involvement

NCDOT collaborated with the public and city representatives to develop various options for improving the intersection. The collaborative process included a project kick-off stakeholder meeting, Local Officials' Informational Meetings, and public meetings. Handouts provided at the meetings, comment forms, and meeting summaries are available in the NCDOT Division 3 project files.

Stakeholder Meeting: A stakeholder meeting was held on August 20, 2015 to introduce the proposed project. A PowerPoint presentation was used to describe both existing and future conditions, the project's purpose, design considerations, conceptual alternatives being considered, and the draft project schedule. The meeting also provided an opportunity for the design team to gather local information on the study area.

1st Public Meeting: A public meeting for the project was held at St. Andrews Episcopal Church (101 Airlie Road, Wilmington) on September 29, 2015. The informal, open house style meeting had 147 individuals sign in. Thirty-four comment forms were received during the comment period. Comments included bicyclist and pedestrian safety when crossing the intersection, physical impacts to residential property, and aesthetics at the intersection.

2nd Public Meeting: A second public meeting was held on August 21, 2017 in the Northeast Regional Library (1241 Military Cutoff Road, Wilmington). Prior to the public meeting a Local Officials Informational Meeting has held in the same room. Seven people attended the LOIM. The second public meeting had 202 individuals sign in. Twenty-five comments on the project

were received. Comments included bicycle/ pedestrian navigation at the intersection along the Cross-City Trail, and traffic associated with proposed development in the study area.

3rd Public Meeting: A third public meeting was held on June 25, 2018 at College Acres Baptist Church (702 Eastwood Road, Wilmington). A Local Officials Informational Meeting was held prior to the public meeting. The third public meeting had 271 people sign in, of which five were local officials. Thirty-eight comment forms were received. Comments included bicycle/pedestrian navigation at the intersection along the Cross-City Trail, access at Eastport and Lion's Gate subdivisions, aesthetics, and loss of vegetation surrounding the Eastport subdivision.

F. Project Impact Criteria Checklists

Table 7 is the NCDOT Project Impact Criteria Checklist, which is used to summarize impacts for the Proposed Alternative .For resource impacts identified with the checked box **Yes**, additional information is provided for those questions in Section G.

Table 7:	Summary of Impacts for Proposed Alternative		
Type III	<u>Actions</u>	Yes	No
1	Does the project involve potential effects on species listed with the US Fish and Wildlife Service (USFWS) or National Marine Fisheries (NMFS)?	\boxtimes	
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?		\boxtimes
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?		\boxtimes
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?		\boxtimes
5	Does the project involve substantial residential or commercial displacements or right of way acquisition?		\boxtimes
6	Does the project include a determination under Section 4(f)?		\boxtimes
7	Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool?		\boxtimes
8	Is a project level air quality Mobile Source Air Toxics (MSAT) analysis required?		\boxtimes
9	Is the project located in anadromous fish spawning waters?		\boxtimes
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	\boxtimes	
11	Does the project impact waters of the United States in any of the designated mountain trout streams?		\boxtimes
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?		\boxtimes
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?		\boxtimes
14	Does the project include Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a no effect, including archaeological remains? Are there project commitments identified?		\boxtimes
15	Does the project involve hazardous materials and/or landfills?	\boxtimes	
16	Does the project require work encroaching and adversely effecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?		\boxtimes
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?		\boxtimes
18	Does the project require a U.S. Coast Guard (USCG) permit?		\boxtimes
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?		\boxtimes

20	20 Does the project involve Coastal Barrier Resources Act (CBRA) resources?			
21	Does the project impact federal lands (e.g. USFS, USFWS, etc.) or Tribal Lands?		\boxtimes	
22	Does the project involve any changes in access control?	\boxtimes		
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?		\boxtimes	
24	Will maintenance of traffic cause substantial disruption?		\boxtimes	
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?		\boxtimes	
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?		\boxtimes	
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?		\boxtimes	
28	Is the project considered a Type I under the NCDOT's Noise Policy?	\boxtimes		
29	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?		\boxtimes	
30	Are there other issues that arose during the project development process that effected the project decision?		\boxtimes	

G. Additional Documentation as Required from Section F

Checklist Item 1: Federally Protected Species

Northern long-eared bat

The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long- eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is "May Affect, Likely to Adversely Affect". The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes New Hanover County, where STIP U-5710 is located.

Checklist Item 10: Water Resource Impacts

Stream SA is a UT to Bradley Creek. Bradley Creek is a High Quality Water (HQW) and Primary Nursery Area located within 1.0 mile of the study area. Potential permanent impacts to stream SA are 450 feet. A General Permit (GP) 31 will likely be applicable. The US Army Corps of Engineers holds the final discretion as to what permit will be required to authorize project construction.

The NCDOT will continue to coordinate with the USACE and avoid and minimize impacts to streams and wetlands to the greatest extent practicable during final design. The NCDOT will investigate potential on-site stream and wetland mitigation opportunities. If on-site mitigation is not feasible, mitigation will be provided by the NC Department of Environmental Quality, Division of Mitigation Services.

Checklist Item 15: Hazardous Material Sites

Three (3) sites of concern are identified within the project area, including two (2) underground storage tank (UST) facilities and one (1) dry cleaning operation. The NCDOT GeoEnvironmental Section anticipates low monetary and scheduling impacts resulting from these sites. These sites are described in the GeoEnvironmental Report for Planning – US 74 (Eastwood Road) at SR 1409 (Military Cutoff Road) in Wilmington (August 2015) available in the project files.

Checklist Item 22: Changes in Access Control

The Proposed Alternative includes both full and partial control of access. The Eastwood Road overpass is designed to have full control of access with partial control on both sides of the structure. Upgrades of Military Cutoff Road and Commonwealth Drive from uncontrolled roadways with center turn lanes to median divided facilities will prohibit the ability to make left turns except at designated locations. Drysdale Drive extension is designed as a median divided roadway with partial control of access. During public involvement there was no significant controversy regarding the change in access control.

Checklist Item 28: Noise Impacts

Since the project changes the existing vertical and horizontal configuration of the intersection, and adds a new quadrant, the project is classified as a Type I project per 23 CFR 772. A Draft Traffic Noise Report (October 2018) identified 424 noise-sensitive receptors in the project area with 61 receptors being impacted by traffic under the Proposed Alternative. Sixty residential units would be impacted out of a total of 390 residential receptors. One commercial business would be impacted out of 20 commercial receptors².

Due to the predicted impacts associated with the Proposed Alternative, noise abatement was analyzed for the project. Seven noise barriers were evaluated for their ability to reduce noise levels at impacted receptors and meet NCDOT's criteria for feasibility and reasonableness. All noise barriers were found to be reasonable except Noise Barrier 5 (see Figure 4 for noise barrier locations). Final decision on the installation of an abatement measure shall be made upon completion of the project design, the public involvement process, and concurrence with the NCDOT Policy. The Traffic Noise Report will be made available in the project files at the NCDOT Project Management Unit upon completion.

² Eleven identified receptors would not be impacted under the Proposed Alternative. U-5710

H. Project Commitments

New Hanover County
Intersection Upgrade of Eastwood Road (US 74) / Military Cutoff Road (SR 1409)
Federal Project No. NHPP-0074 (159)
WBS No. 50116.1
STIP No. U-5710

NCDOT Division 3

The Division 3 Project Manager will coordinate with the Wilmington Urban Area MPO and City of Wilmington on including design features to enhance the aesthetic quality and visual appearance of the project. Municipal agreements will be prepared, as applicable, prior to project construction.

The Division 3 Project Manager will coordinate with New Hanover County Emergency Management and E911 (910-798-6907), New Hanover County Schools Transportation Department (910-254-4080), and WAVE Transit (910-343-0106), to notify them of the schedule for potential closures and detour routes during construction activities at least one month prior to closure.

The Division 3 Project Manager shall notify affected property owners and businesses of the schedule for potential closures and detour routes during construction activities at least one month prior to construction.

The Division 3 Division Engineer shall make a final decision on the installation of noise abatement measures upon completion of the Final Traffic Noise Report, project design, the public involvement process, and concurrence with the NCDOT Traffic Noise Policy (2016).

Bicycle and pedestrian accommodations will be further coordinated with the City during final design. The Division 3 Project Manager will coordinate with the NCDOT Division of Bicycle and Pedestrian Transportation and with the City regarding the type and location of bicycle/ pedestrian crossings at major intersections.

NCDOT Hydraulics Unit

The Division 3 Project Manager will submit sealed as-built construction plans to the NCDOT Hydraulics Unit upon completion of project construction, certifying that the drainage structures were built as shown in the construction plans, both horizontally and vertically.

I. <u>Categorical Exclusion Approval</u>

STIP Project No. U-5710
WBS Element 50116.1
Federal Project No. NHPP-0074 (159)

Prepared By:

10/29/2018 Jettrey Dayton

Date Jeffrey Dayton, P.E., Project Manager

HDR Engineering, Inc. of the Carolinas

Prepared For: Division of Highways

North Carolina Department of Transportation

Reviewed By:

10/31/2018 Michael L Bass Jr.

Date Michael Bass, Project Manager

Division of Highways – Division 3

North Carolina Department of Transportation

10/30/2018 Mason Herndon

Date Mason Herndon, Division 3 Environmental Program Supervisor

Division of Highways – Division 3

North Carolina Department of Transportation

NCDOT certifies that the proposed action qualifies as a Type III Categorical Exclusion.

10/30/2018 Mason Herndon

Date for Karen E. Collette, PE, Division Engineer

Division of Highways – Division 3

North Carolina Department of Transportation

FHWA Approval:

10/30/2018 Kristina Solberg

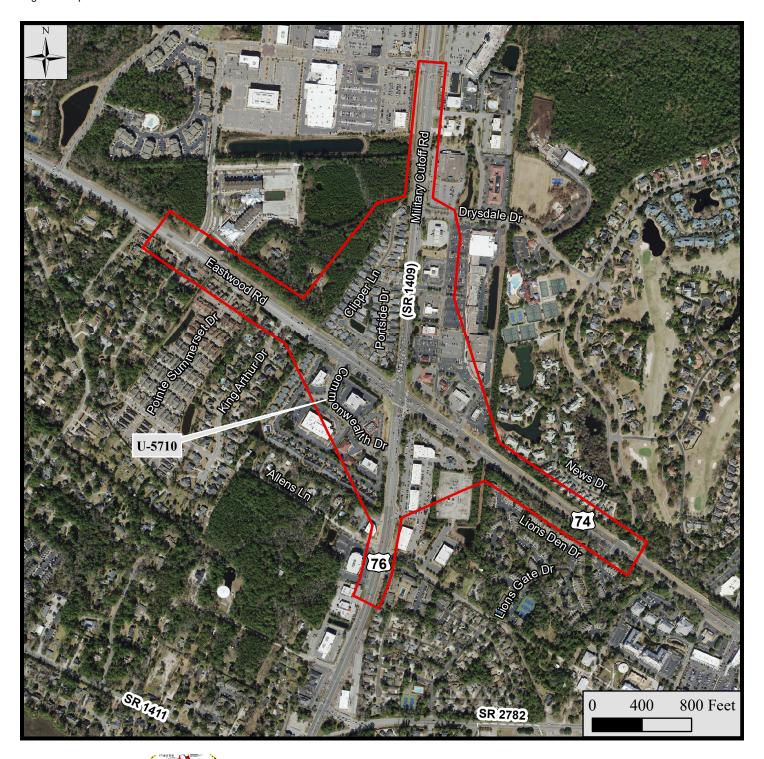
Date for John F. Sullivan, III, PE, Division Administrator

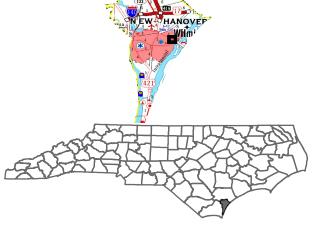
Federal Highway Administration

Additional Reports and Documentation

The technical reports listed below, as well as any additional project documentation, can be found at NCDOT Project Management Unit in the project file and also on NCDOT SharePoint site.

- Natural Resources Technical Report
- Public Involvement activities
- Community Impact Assessment
- No Archaeological Survey Required Form
- No Historic Architectural and Landscapes Survey Required Form
- Air Quality Report
- Hydraulic Memo
- GeoEnvironmental Report for Planning
- Traffic Capacity Analysis
- Draft Traffic Noise Report (Final Report expected December 2018).
- Crash data



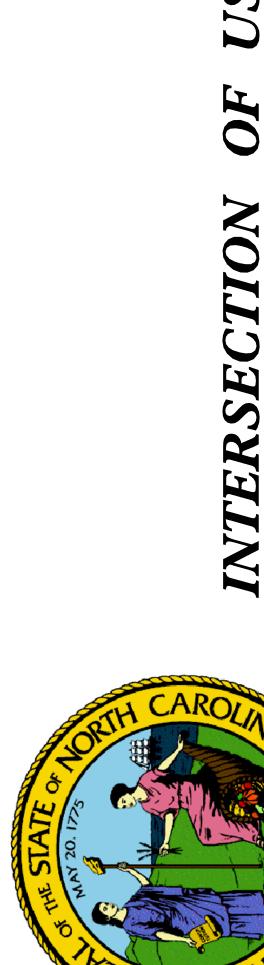


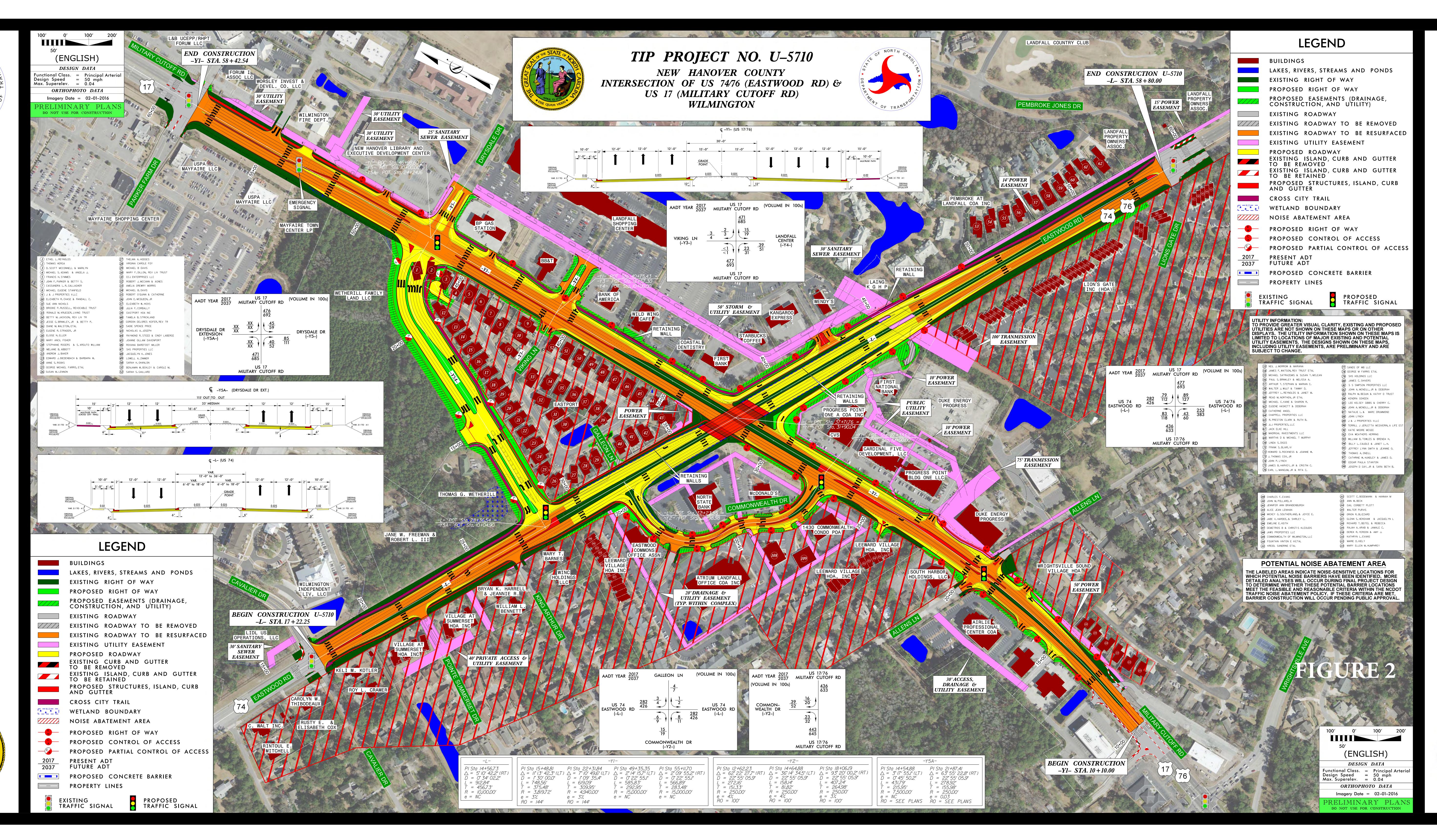


NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS UNIT

WILMINGTON
INTERSECTION OF US 74 (EASTWOOD RD) AND
SR 1409 (MILITARY CUTOFF RD)
NEW HANOVER COUNTY
TIP PROJECT U-5710

Figure 1











Meeting Minutes

Project:	NCDOT U-5710, US 74 (Eastwood Road) at SR 1409 (Military Cutoff Road)				
Meeting Location:	Nebol Structure Design Conference Nooni C				
Meeting Subject / Date:	Project Initiation Meeting September 25, 2014 @ 9:00 AM				
Notes By:	J. Dayton, K. Stull	Job No:	Ki L. Billespie, PE		

Meeting Purpose: Project initiation meeting to discuss the information needed for the traffic forecast request, project history, schedule and next steps.

Attendees:

Ron Lucas **FHWA** Rob Hanson NCDOT PDEA Jay McInnis **NCDOT PDEA** Kim Gillespie **NCDOT PDEA Gary Lovering NCDOT** Roadway Christopher Lee **NCDOT Roadway** Nora McCann **NCDOT TPB** Benjetta Johnson **NCDOT CMS** Karen Fussell NCDOT Div 3 Jackson Provost NCDOT Div 3 **Chad Kimes** NCDOT Div 3 Patrick Riddle NCDOT Div 3 Katie Hite NCDOT Div 3 Mike Kozlosky Wilmington Urban Area MPO Corey Knight Wilmington Urban Area MPO Kirk Stull **HDR** Jeff Dayton **HDR**

Discussion Items:

1. Other Projects in the Area

- Some of the current NCDOT TIP projects in the vicinity of U-5710 include U-4751 (Military Cutoff Road), U-3831 (Gordon Road), and U-5704 (College Road / Oleander Drive intersection).
- If the City of Wilmington Transportation Bond is passed in November 2014, the Wilmington Urban Area MPO (WMPO) will extend the median along Eastwood Road from Commonwealth Drive west to Barrington Road in the vicinity of St. Mark Catholic Church.

2. Discuss MTIP

• The U-5710 interchange is not in the current MTIP for the WMPO. However, the plan and model are being updated to a horizon year 2040 with an estimated approval date set for December

2015. The 2040 MTIP will have to include the interchange in the Plan. FHWA cannot approve the environmental document until this occurs. However, public meetings can occur during this time period.

3. Unique Characteristics of the Local Area/Project Vicinity

- The WMPO passed a resolution in August 2014 supporting the redesignation of US 17 to various streets in New Hanover County. If the designation is approved, US 17 will be signed along Military Cutoff Road in the vicinity of this project area.
- One of the main features of this area is the Gary Shell Cross-City Trail, which travels along the south side of Eastwood Road west of Military Cutoff Road, and on the north side of Eastwood Road east of Military Cutoff Road. This is one of the most popular pedestrian/bicycle crossings in the entire City of Wilmington. Mike Kozlosky commented this should be one of the major considerations in the design of the proposed interchange.
- The Military Cutoff Trail is being planned to extend south of Drysdale Drive to connect with the Cross-City Trail.
 - The Team wondered if the majority of the pedestrian/bicycle movements in the future could be made farther east near the intersection of Pembroke Jones. Any proposed interchange at Eastwood Road/Military Cutoff Road would still have accommodations for pedestrian/bicycles.
- Wave Transit Route 104 (Northeast) traverses both Military Cutoff Road and Eastwood Road in the vicinity of this intersection.
- Chad Kimes said that NCDOT Division 3 would like to implement adaptive signals along three
 corridors in the Wilmington Area, one of which includes Military Cutoff Road. Ideally these
 would be in place and implemented before construction begins on U-5710.

4. Traffic Projections (discuss traffic forecast form)

- Gary Lovering stated he would like the traffic forecast to include the next signal along both
 Eastwood Road and Military Cutoff Road. After discussion among the attendees on the traffic
 forecast limits, the team decided to obtain an interim traffic forecast (turning movement counts,
 mainline volumes) at the intersection itself, and generally the next driveway/intersection
 moving away from the proposed interchange in all four directions. Some of those intersections
 include:
 - o Eastwood Road/Commonwealth Drive/Galleon Lane
 - Military Cutoff Road/Drysdale Drive
 - Military Cutoff Road/Viking Lane
 - Eastwood Road/Lions Gate Drive/Pembroke Jones Drive
 - Military Cutoff Road/Commonwealth Drive
- After the WMPO Regional Model is updated to 2040, the traffic forecasts will be updated. At that time the study area will likely increase to include other connecting roadways in the vicinity of the proposed interchange.

 NCDOT Division 3 believes heavier volumes occur along Military Cutoff Road, except in the summer when seasonal volumes along Eastwood Road are similar to Military Cutoff Road. The 2013 AADT map shows approximately 41,000 vehicles per day on Military Cutoff Road and between 19,000 to 22,000 vehicles per day on Eastwood Road in the vicinity of this intersection.

4. Project Schedule

Currently the external scoping meeting is scheduled for March 2015, but ideally the Team will
try to move the meeting up to January 2015. A public meeting could be held 2-3 months later to
begin conversations with the public. The EA is scheduled for June 2017 with the FONSI in August
2018.

5. Moving Forward

- Team members agreed the Mount Pleasant, SC project was well done and would serve as a good model for a proposed interchange. The project would be a good model not only from a vehicular traffic perspective, but pedestrians and bicycles as well. Examples of this project (and others similar in NC) could help relay the message to the local community. A good potential location for the public meeting would be the New Hanover County Northeast Regional Library on Military Cutoff Road.
- Ron Lucas mentioned a Categorical Exclusion could be appropriate, depending on what impacts are determined.
- Multiple interchange alternatives will be considered for this intersection. Mr. Kozlosky suggested investigating a quadrant intersection. Mr. Lovering confirmed it would be an alternative examined.
- Rob Hanson suggested using visualization to help sell the project. It may be beneficial to
 prepare renderings, etc. in order to best present the current situation and what benefits the
 new interchange would provide.
- Traffic simulations of existing conditions and existing conditions with future traffic forecasts may be prepared for the public to demonstrate the project purpose. Traffic forecasts and counts will be needed to produce these simulations. The simulations could show bicycle and pedestrian movements as well.

6. Action Items

- NCDOT will prepare the traffic forecast request, with assistance from HDR.
- WMPO will provide any existing count data of the use the Cross-City trail crossing, particularly since the pedestrian upgrades were made to the existing signal at Eastwood Road and Military Cutoff Road.
- NCDOT/HDR will begin preparations for an external scoping meeting in January 2015. Goals of that meeting will be to confirm a study area and develop the Purpose Statement.

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Meeting Minutes

Project:	NCDOT U-5710, US 74 (Eastwood Road) at SR 1409 (Military Cutoff Road)			
Meeting Location:	NCDOT Structure Design Conference Room C			
Meeting Subject / Date:	External Scoping Meeting April 16, 2015 @ 10:00 AM			
Notes By:	J. Dayton, K. Stull	Job No:		

Meeting Purpose: The purpose of the meeting was to discuss known information about the project and the project area, receive agency comments, and discuss next steps in the project development process.

Attendees:

Ron Lucas	FHWA	Emily Murray	NCDOT SMU
Rob Hanson	NCDOT PDEA	Greg Dickey	NCDOT SMU
Jay McInnis	NCDOT PDEA	Jim Armfield	NCDOT PDEA
Kim Gillespie	NCDOT PDEA	Brad Shaver	USACE (by phone)
Christopher Lee	NCDOT Roadway	Cathy Brittingham	NCDENR-DCM
Benjetta Johnson	NCDOT CMS	Gary Jordan	USFWS
Karen Collette	NCDOT Division 3 (by	Travis Wilson	NCWRC
phone)		Cynthia Van Der Wiele	USEPA
Chad Kimes	NCDOT Division 3 (by	Fritz Rohde	NOAA Fisheries (by
phone)		phone)	
Patrick Riddle	NCDOT Division 3	Mason Herndon	NCDENR-DWR (by
Katie Hite	NCDOT Division 3	phone)	
Stoney Mathis	NCDOT Division 3 (by	Renee Gledhill-Earley	NCHPO (by phone)
phone)		Shane Staples	NCDENR-DCM Fisheries
Hardee Cox	NCDOT STIP	(by phone)	
Brook Anderson	NCDOT Hydraulics	Mike Kozlosky	WMPO
Mark Staley	NCDOT REU	Kirk Stull	HDR
Tris Ford	NCDOT HES	Jeff Dayton	HDR

Summary:

Kim Gillespie began the meeting with introductions and an overview. Jeff Dayton presented a summary of the project description, existing conditions, project purpose, proposed study area, NCDOT comments, ongoing studies in the project vicinity and anticipated next steps. The following are key discussion topics from the meeting:

1. Agency Comments

- Cathy Brittingham said there appears to be no CAMA Areas of Concern for this project. No CAMA permit is anticipated. A "Federal Consistency Certification" will possibly be needed. The U-5710 project should be in conformance with CAMA Land Use Plans.
- Renee Gledhill-Earley stated that HPO did not have any concerns with the project.

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- Fritz Rohde stated NOAA Fisheries does not have any concerns.
- Mike Kozlosky mentioned the Wilmington MPO is planning to convert Eastwood Road west of the intersection from a five-lane facility to a four-lane divided facility with a center median.
 This project was funded in the 2014 City of Wilmington Transportation Bond, and will likely be constructed in the next five to seven years.
- Mr. Kozlosky also mentioned bicycle and pedestrian accommodations will be important for this
 project. The Cross-City Trail runs along Eastwood Road and crosses Military Cutoff Road. A
 multi-use path along Military Cutoff Road is in design to extend south from Drysdale Drive to the
 Cross-City Trail at Eastwood Road.
- Ron Lucas said that a Categorical Exclusion (CE) Class of Action could be appropriate, depending on what impacts are determined.
- Cynthia Van Der Wiele posed a question about what other "Outside the Box" Alternatives are being considered. HDR's response was that the alternatives are still under development and nothing has been brought forward.
- Rob Hanson noted public involvement will be a very important element of this project. In addition, how NCDOT will handle the maintenance of traffic during construction will be an issue for local commuters and residents. Mike Kozlosky reiterated the importance of public involvement, especially in light of the new developments in the area (Autumn Hall, etc.). Jay McInnis noted NCDOT will account for any additional impacts in the project footprint.

2. Merger 01 Process Discussion

Brad Shaver noted there are some jurisdictional features in the project area, primarily
northwest of the intersection and also near Lionsgate Drive. However, Mr. Shaver did not think
the Merger process is necessary for this project. The following agencies also concurred with this
statement during the meeting: DWR, FHWA, DCM, HPO, USFWS, NCWRC, WMPO, USEPA, and
DCM Fisheries.

3. Public Involvement

- Tris Ford thought there may be potential LEP and EJ populations in a census block group north of the intersection. This should be researched and considered in the public involvement. Cynthia Van Der Wiele asked if the FHWA Class of Action was a CE document, would that have the same amount of EJ analysis. Jay McInnis responded that regardless of the document type, EJ will receive the same level of analysis.
- Mason Herndon commented with regard to high quality waters, the designs should allow enough room for storm water best management practices to be installed.
- The group discussed whether to present the project to the public early with less information or wait until more information is available. Mr. Kozlosky stated he believed the project team should present the project as soon as they could. He stated he expects there to be a lot of growth in the surrounding area.
- Pictures of an interchange HDR designed in Mount Pleasant, SC were shown to the group. It was discussed the Mount Pleasant project might serve as a good model for a proposed interchange. Stoney Mathis noted the proposed laneage for U-5710 is similar to the laneage in Mt. Pleasant.

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Katie Hite suggested showing what the traffic conditions would look like before and after the construction of the interchange at the future public meeting.

4. Action Items

- NCDOT will update the TIP estimate once project costs are more defined.
- NCDOT/HDR will begin preparations for the upcoming public meeting, anticipated for June 2015.

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15-02-0015



HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

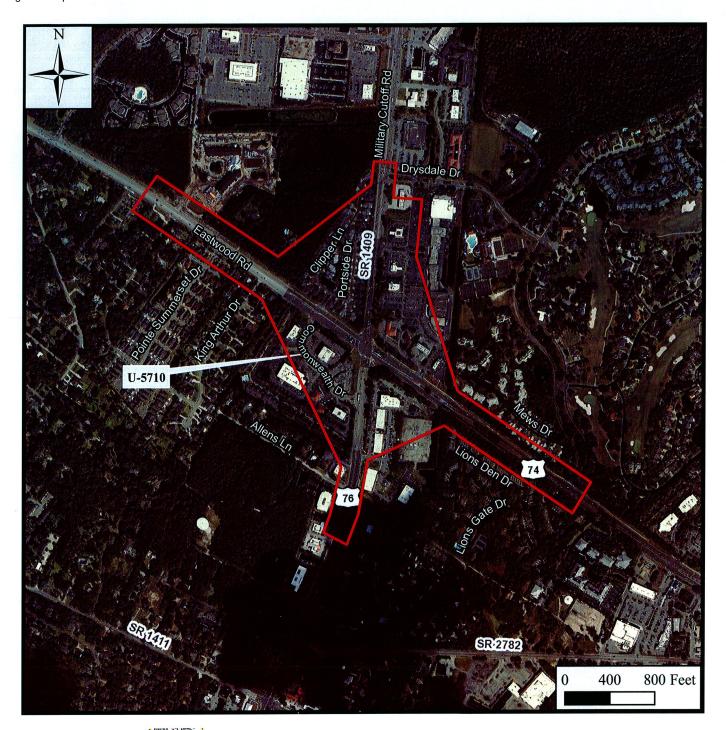
This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

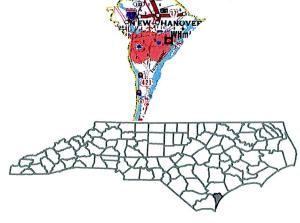
	PROJEC	CT INFORMATIO	ON		
Project No:	U-5710	County:	New Hanover		
WBS No.:	50115.1.FS1	Document Type:	CE		
Fed. Aid No:	NHPP-0074(159)	Funding:	☐ State ☐ Federal		
Federal Permit(s):	Yes No	Permit Type(s):	Nationwide		
Project Description Intersection, in Wi		74 (Eastwood Road)/SR 1409 (Military Cutoff Road)		
SUMMAR	Y OF HISTORIC ARC	HITECTURE AN	ID LANDSCAPES REVIEW		
undertaken on Febru properties in the Are as shown on the followithin the APE are la Google Maps Street National Register lis change, additional rewith the available are no unidentified area: HPO quad maps and County survey, New purposes of determine	ary 19, 2015. Based on this a of Potential Effects, which wing maps. New Hanover ate 20 th century houses and View confirms that there are ted or eligible properties we will be required. Information provides and additional distribution of the significant historic and Hanover GIS/Tax Information may be a significant of the significant historic and the significa	s review, there are not his approximately 0 or GIS/Tax Informatic commercial building re no properties under the APE and not the APE and not the APE are the theorem of the	ions roster, and indexes was existing NR, SL, LD, DE, or SS and 5.5 miles surrounding the intersection on indicates that all of the properties gs, ranging from the 1970s to 1990s. In fifty years of age. There are no survey is required. If design plans the reasonably predicting that there and SS properties for the New Hanover ps are considered valid for the esent. There are no National Register I.		
SUPPORT DOCUMENTATION					
Map(s)	revious Survey Info.	Photos	Correspondence Design Plans		
	FINDING BY NCDOT	ARCHITECTUR	AL HISTORIAN		
Historic Architectu	re and Landscapes NO	SURVEY REQUI	RED		
Late Hu	Stand		2/20/2015		

NCDOT Architectural Historian

Date

Historic Architecture and Landscapes NO SURVEY REQUIRED form for Minor Transportation Projects as Qualified in the 2007 Programmatic Agreement.





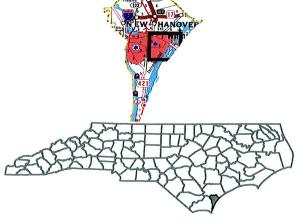


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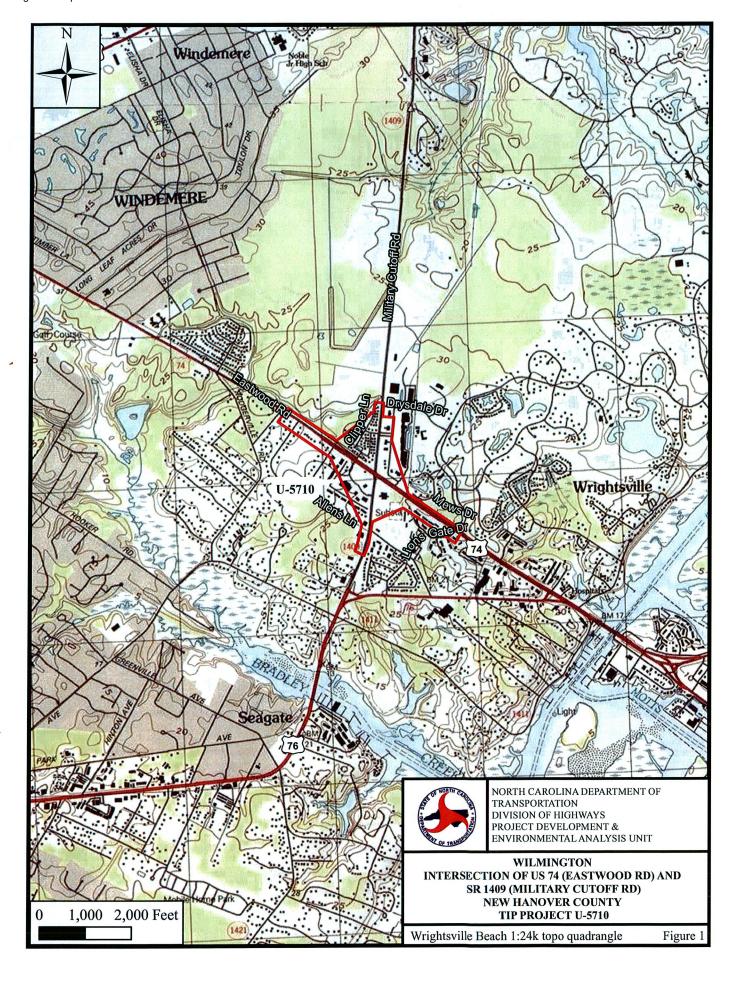




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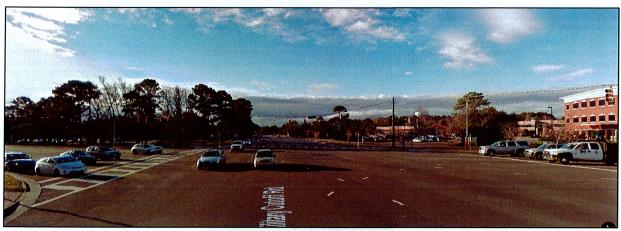
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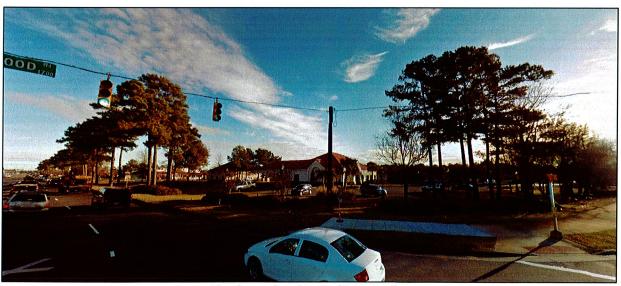
HPO GIS. There are no National Register listed or eligible properties within the APE.



Southwest and Southeast Quadrants of Intersection, Looking South

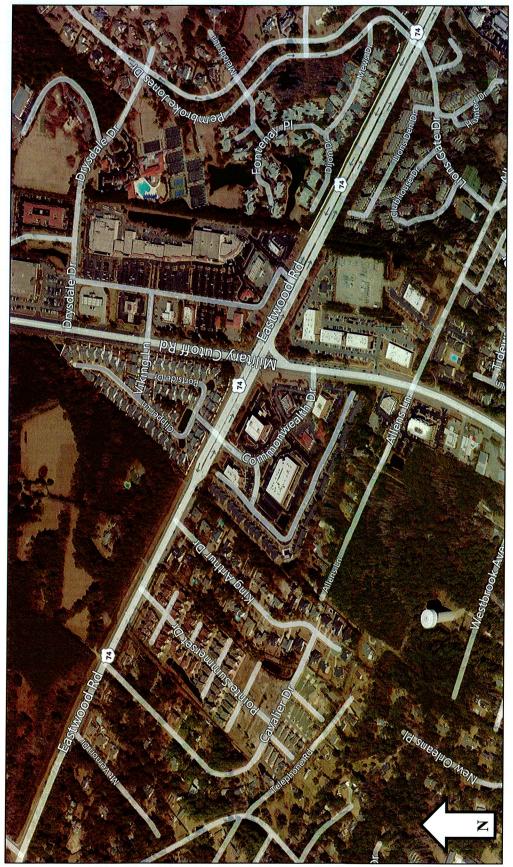


Northwest Quadrant of Intersection



Northeast Quadrant of Intersection

Google Maps Street Views



Bing Maps Birds Eye View of Intersection looking North

15-02-0015



NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.



80,	Historic Arc	hitecture and Lan	dscapes Group.	W767		
PROJECT INFOR	MATION					
Project No:	U-5710	County:	New Hanover			
			EA/FONSI OR CATERGORIO	CAL		
WBS No:	50115.1.FS1	Document:	EXCLUSION			
F.A. No:	NHPP-0074(159)	Funding:	☐ State ☐ Federal			
Federal Permit Requ	iired?	Yes No	Permit Type: Nationwide			
	OT ARCHAEOLOG <u>Y SURVEY REQUIRE</u>					
Caleb Smith			4/16/2015			
NCDOT ARCHAEC	DLOGIST II		Date			

